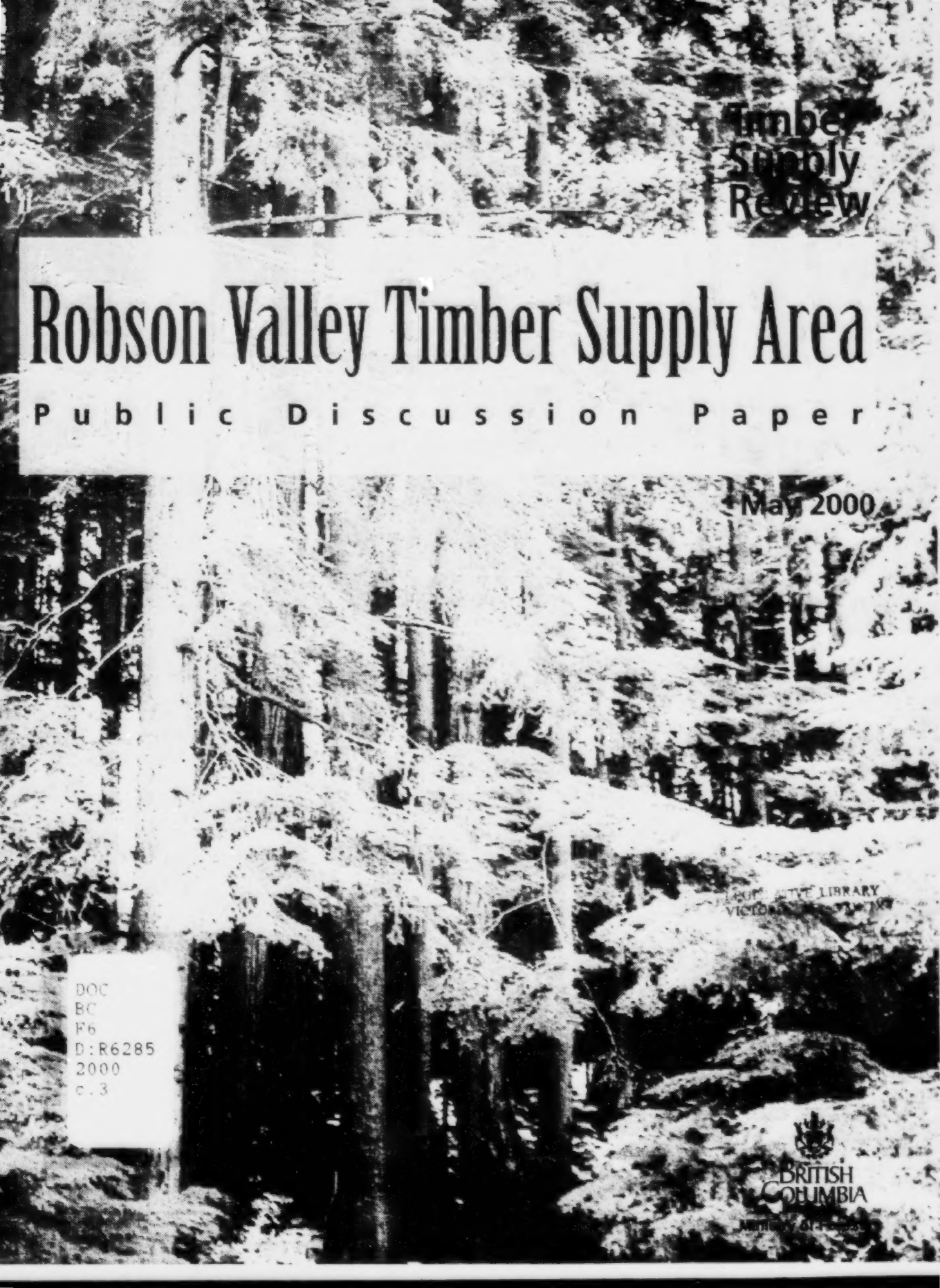

Timber Supply Review

Robson Valley Timber Supply Area

Public Discussion Paper

May 2000

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Introduction

The British Columbia Forest Service is reviewing the timber supply for all timber supply areas (TSAs) and tree farm licences (TFLs) in the province. This review examines the impacts of current forest management practices on the timber supply, economy, environment and social conditions of the local area and the province. Based on this review, the chief forester may, if necessary, adjust the allowable annual cut (AAC) for the Robson Valley TSA.

By law, the chief forester must review and set new AACs for all TSAs and TFLs every five years. The objectives of the Timber Supply Review are:

- to identify relevant current forest management practices and assess their effects on short- and long-term timber supply, and identify related economic, environmental and social factors
- to identify where improved information is required for future timber supply forecasts
- to provide the chief forester with information to make any necessary adjustments to the AACs for the next five years

Timber Supply Review in the Robson Valley TSA

The *Robson Valley TSA Data Package* and *Information Report* were released in December 1998. Following the release, the documents were reviewed by licensees, the public and government agencies. The BC Forest Service has now completed the *2000 Robson Valley TSA Analysis Report* that is summarized in this discussion paper. The objectives of the discussion paper are to provide British Columbians with an overview of the timber supply review and harvest level forecasts for the Robson Valley TSA and to encourage them to provide comments during the 60-day public review period. Public comments will be accepted until July 17, 2000.

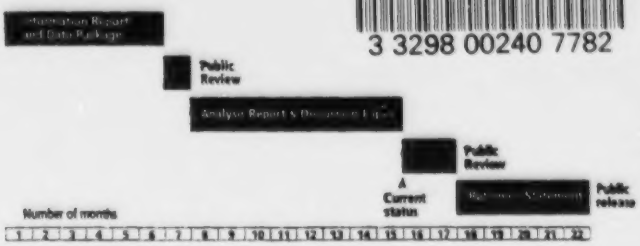
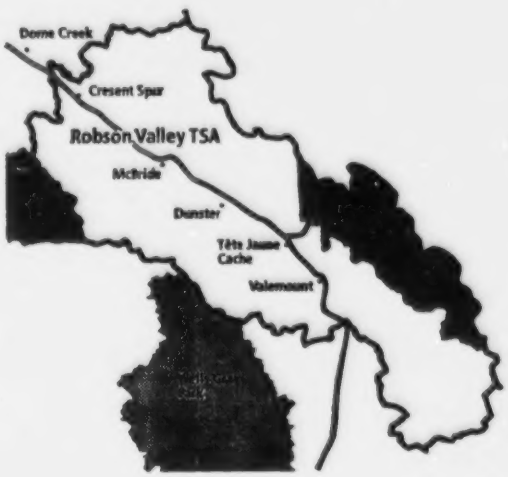


Figure 1 *Review process for the Robson Valley TSA*

Before setting a new AAC, the chief forester will review all relevant reports and public input. The chief forester's determination will be outlined in a rationale statement that, along with the summary of public input, will be publicly available upon release. Following the release of the AAC determination by the chief forester, the minister of forests will apportion the AAC to the various licences and programs.

Description of the TSA



The Robson Valley TSA is located in east-central B.C. and covers approximately 1.2 million hectares. Located in the southeast portion of the Prince George Forest Region, the Robson Valley timber supply area coincides with the Robson Valley Forest District, except for Mount Robson Provincial Park. It is administered from the forest district office in McBride.

** A timber supply area is an integrated resource management unit established in accordance with section 7 of the Forest Act.*

The total population of the TSA in 1996 was estimated to be 4,080 people, an increase of about 12 per cent from 1991. The major communities are the villages of Valemount and McBride with estimated 1999 populations of 1,362 and 757, respectively. Other communities in the TSA include Tête Jaune Cache, Croydon, Dunster, Crescent Spur and Albreda.

The natural resources

Timber, forage, water, fisheries, wildlife, scenic landscapes, and outdoor recreation opportunities highlight the wide range of forest land resources found in the Robson Valley TSA.

The landscape of the Robson Valley TSA is rugged and characterized by snow-capped mountain ranges, steep forested slopes, and fast-moving mountain streams. The forest is dominated by mature and old-growth stands of timber. The Rocky Mountain trench provides suitable land for agriculture, road and rail transportation and community development. Guide outfitting and trapping depend on the large mammals and fur-bearing animals common to the area.

To the west, the Robson Valley TSA borders on three provincial parks: Bowron Lake, Wells Gray and the Mitchell Lake-Niagara protected area that connects them. To the east is the Willmore wilderness area, Mount Robson Provincial Park, and Jasper National Park and to the north-east is the Kakwa Recreation Area. The scenic beauty is enjoyed by both residents and tourists. Outdoor recreation opportunities include hiking, camping, hunting, fishing, snowmobiling, and cross country, telemark and heli-skiing.

The two main waterways are the Fraser River which flows north-west from Mount Robson Provincial Park toward Prince George and Kinbasket Lake, which lies south-east between the Rocky Mountains and the Monashee Ranges.

There are four biogeoclimatic zones—a large geographic area with similar climate and dominant tree species—in the Robson Valley TSA. These include the Sub-Boreal Spruce zone found at low elevations in the main trench, the Interior Cedar-Hemlock zone encountered at low to mid-elevations through out the area, the Engelmann Spruce-Subalpine Fir zone at higher elevations, and the Alpine Tundra zone found at mountain tops.

Land-use planning

The Robson Valley Land and Resource Management planning process began in 1993. The management plan was approved in 1999, and covers the entire Robson Valley TSA including Mount Robson Provincial Park. The plan provides direction on landscape units, biodiversity, fish and wildlife, and visual quality objectives. As well, ten new protected areas have been identified but have not been formally established.

Current allowable annual cut

In 1996, the chief forester set the allowable annual cut for the Robson Valley TSA at 602,377 cubic metres. This harvest level maintained the previous level less 3,623 cubic metres for new woodlots, and added 6,000 cubic metres for harvesting deciduous stands.

Socio-economic profile

Figure 2 shows, the major employment sectors in the Robson Valley TSA. The forestry sector, including harvesting, silviculture and wood products manufacturing is the largest sector supporting 37 per cent of the total labour force. Tourism is the second largest sector accounting for 21 per cent of the labour force while the public sector (education, health and government public service) supporting 20 per cent of the labour force.

The total experienced labour force in the Robson Valley TSA increased by 12.3 per cent to 2,100 from 1,870 between 1991 to 1996 (compared to a provincial growth rate of 14 per cent).

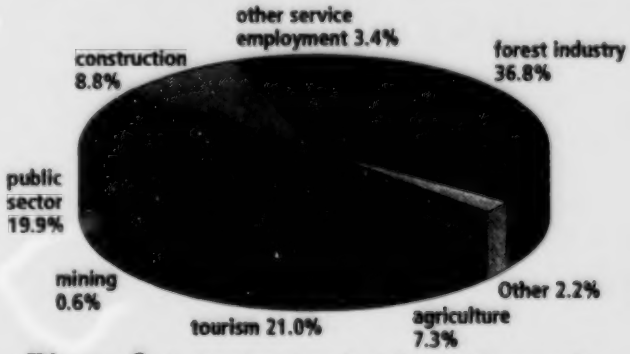


Figure 2. Estimation of total employment by sector for the Robson Valley TSA, 1996

Source: The 1996 Forest District Tables. Ministry of Finance and Corporate Relations April, 1999.

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*Deciduous trees commonly have broad leaves and usually shed their leaves annually

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About 87 per cent of the timber harvested in the Robson Valley TSA (associated with the current AAC of 602,377 cubic metres) remains in the TSA for processing into lumber, veneer and other products.

	TSA	Provincial
Direct employment (person years)	428	601
Total employment (person years)	595	1,331
Total employment income ($1998 millions per year)	$25.6	$52.8
Provincial government revenues ($1998 millions per year)	n.a.	$19.8

Table 1. *Summary of local and provincial economic information associated with the current AAC.*

Table 1 illustrates the estimated contribution of the forest industry associated with the Robson Valley TSA timber harvest to both the regional and provincial economies. Figures in this table are based on the current AAC of 602,377 cubic metres.

Timber supply forecasts and areas of uncertainty

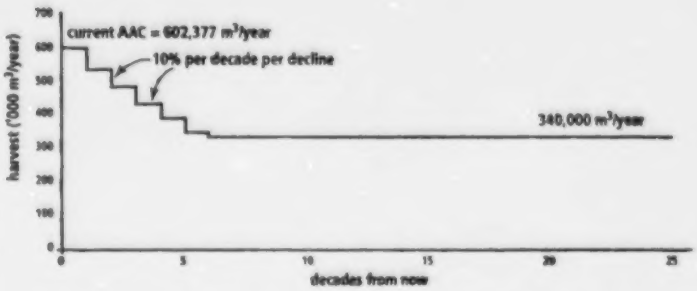
A timber supply computer model is used to project several possible timber supply forecasts for the next 250 years. One of these forecasts is the base case forecast, which illustrates the effect of current forest management on timber supply. The base case is not an AAC recommendation, but rather one of many sources of information the chief forester will consider when setting the AAC.

The base case forecast is presented in this report for discussion and comparison and due to areas of uncertainty, the AAC determined by the chief forester may be greater or less than the level forecast in the base case.

In the *2000 Robson Valley TSA Analysis Report* (see Figure 3), the base case harvest level starts at 602, 377 cubic metres per year, including 6,000 cubic metres for deciduous harvesting.

The base case timber supply forecast for the Robson Valley TSA indicates that the current harvest level can be maintained for only one decade before starting to decline. After the first decade, the harvest level declines by 10 per cent each decade over the next five decades until it reaches the steady long-term harvest level of 340,000 cubic metres per year.

Figure 3.



Base case harvest forecast for the Robson Valley TSA, 2000

The harvest level projections in the 2000 timber supply analysis show a similar timber supply forecast as the previous 1994 timber supply analysis which indicated that the base case could be held for one decade before being reduced 10 per cent a decade for the next six consecutive decades.

Areas of uncertainty

Because forests are complex and constantly changing, timber supply analysts assess how their timber supply forecast results might be affected by uncertainties in the inventory information and management practices. These uncertainties are generally examined to provide information for the chief forester to consider in determining an AAC.

There is some uncertainty in the estimated size of the timber harvesting land base due to factors such as fluctuations in timber prices, changes in harvesting and milling technology and land-use decisions. For example, a drop in timber prices could lower the economic viability of harvesting stands in areas with difficult access or stands of lesser quality. However, currently, the base case forecast reflects the best estimate of the timber harvesting land base.

Also there is some uncertainty regarding the impact of not harvesting the oldest stands first; the growth rate of seedlings from seed orchards; the minimum harvest volume; and forest cover requirements for visual quality.

Several sensitivity analyses to explore the impact to timber supply from areas of uncertainty were examined in the analysis. For a complete listing, please refer to the *2000 Robson Valley Analysis Report.* One important sensitivity analysis is described below.

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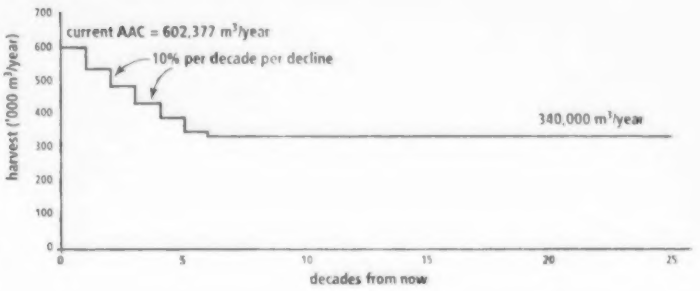

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Uncertainty in Old-Growth Site Index Estimates

The results of two recent provincial studies suggest that the estimated future productivity of old-growth stands may be underestimated. This research compares the measured productivity of existing second-growth stands with the measured productivity old-growth stands growing on ecologically similar sites. The measured productivity of the regenerated stands has been found to be generally higher than the inventoried productivity of the old-growth stands. These results are based on the potential site productivity that might be achieved under ideal conditions. However, in the field, regeneration and subsequent growth does not always occur under ideal conditions due to factors such as competition from brush or overstocking. Therefore, some stands may not reach the potential productivity suggested by research.

Use of the results of these studies are of particular interest to the Robson Valley TSA, as stands older than 140 years make up 58 per cent of the timber harvesting land base. The old-growth site index adjustments from provincial studies indicate that the long-term harvest level could be 40 per cent higher than the base case forecast. However, for the Robson Valley TSA, no specific studies have been undertaken to verify an underestimation of site productivity.

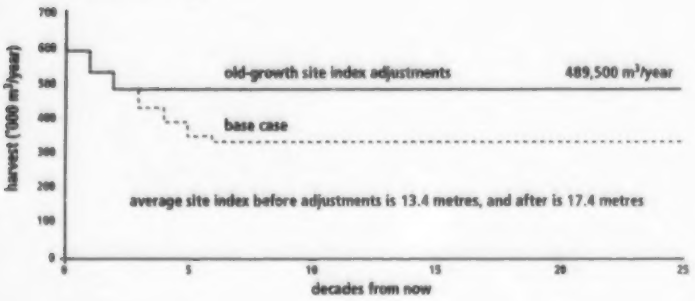

***Figure 4** Harvest forecast based on old-growth site index adjustments — Robson Valley TSA 2000"*

Implications of changes in the AAC

Environmental Implications

Current forest management follows the standards set out by the Forest Practices Code. These standards are designed to maintain a range of biodiversity and wildlife values. In addition, the *Robson Valley Land and Resource Management Plan* provides direction on a range of environmental considerations.

In the Robson Valley TSA, about 60 per cent of the total productive forest is not considered available for timber harvesting and will provide for many environmental values. Forested area both in and outside of the timber harvesting land base will aid in the maintenance of critical forest habitats for many species. Forest cover requirements for caribou, biodiversity, visual quality and community watersheds were included in the analysis.

First Nations Implications

There are no First Nations communities in the Robson Valley TSA. However, five First Nations assert territorial interests in the Robson Valley TSA: the Lheidli T'enneh Nation and the North Thompson Band assert traditional territory that covers the entire TSA, and the Canim Lake, Williams Lake and Red Bluff bands assert territorial interests that cover portions of the TSA.

An Archaeological Overview Assessment for the Robson Valley TSA was completed in 1995 for the *Robson Valley Land and Resource Management Plan.* This overview assessment is the basis for determining areas and sites that may require further assessment in the form of an Archaeological Impact Assessment, which are carried out as part of operational planning. The findings of the impact assessments that have been completed will be considered in this timber supply review.

Community Implications

The implication of changes in the AAC for local communities is an important consideration in the Timber Supply Review. The base case harvest forecast for the Robson Valley TSA suggests that a harvest level of 602,377 cubic metres per year could be maintained for one decade. Then over the following five decades, the harvest level is projected to decline by about 10 per cent each decade to 340,000 cubic metres per year. If the harvest level

declines, then employment and economic activities associated with timber harvesting could similarly decline.

Employment in the forest sector declined from 1996 to 1999, although population levels have increased. This trend indicates that the TSA population is growing which may be due to an expanding tourism industry. The communities may expand development opportunities where possible, which could promote diversification and stability for the local economy.

Your input is needed

Establishing the AAC is an important decision that requires well-informed and thoughtful public input. Feedback is welcomed on any aspect of this discussion paper, the 2000 Robson Valley TSA Analysis Report and other issues related to the timber supply in the Robson Valley TSA. Forest Service staff would be pleased to answer questions or discuss concerns that would help you prepare your response. Please send your comments to the forest district manager at the address below. Your comments will be accepted until July 17, 2000.

You may identify yourself on the response if you wish. If you do, you are reminded that responses will be subject to the Freedom of Information and Protection of Privacy Act and may be made public. If the responses are made public, personal identifiers will be removed before the responses are released.

A summary of public comments will be attached to the AAC rationale and will be available from the district office when the chief forester's AAC determination is announced

For more information contact and/or mail your comments to:

District Manager
B.C. Forest Service
Robson Valley Forest District
Box 40, 380 Highway 16 West
McBride, B.C.

Contact: Norma Stromgberg-Jones
Zone Officer

Phone: (250) 569-3700, Fax: (250) 569-3738 or
Electronically mail to:
Norma.StrombergJones@gems8.gov.bc.ca
Visit our website at http://www.for.gov.bc.ca/tsb

Background Information Regarding TSR

Background Information Regarding TSR

The Chief Forester's Responsibility

Determining the allowable annual cuts (AACs) for public forest lands in British Columbia is the responsibility of the province's chief forester. In this lengthy and complex process, the chief forester considers technical reports, analyses and public input, as well as government's social and economic objectives.

This responsibility is required by legislation in the *Forest Act, Section 8.* It states that the chief forester shall specifically consider the following factors:

1. The rate of timber production that may be sustained from the area, taking into account:
   - the composition of the forest and its expected rate of growth
   - the time that it will take the forest to become re-established
   - silviculture treatments, including reforestation
   - standards of timber utilization
   - constraints on the amount of timber that may be produced due to use of the forest for other purposes.
2. The short- and long-term implications to the province of alternative rates of timber harvesting from the area.
3. The nature, production capabilities and timber requirements of established and proposed processing facilities.
4. The economic and social objectives of the Crown for the area, region and province—as expressed by the minister of forests.
5. Abnormal insect or disease infestations, and major salvage programs planned for the timber on the area.

Some of these factors can be measured and analyzed—others cannot. Ultimately, the chief forester's determination is an independent professional judgment based on the best available information. By law, the chief forester is independent of the political process, and is not directed by the minister of forests when determining AACs. In these determinations, the chief forester considers relevant information from all sources.

Why the current AAC may be higher than the long-term harvest level.

Some concern has been expressed that the AACs are higher than the long-term harvest level. There are two main factors which explain this difference:

- In the short term, harvesting takes place in older forests which have accumulated high timber volumes by growing for a long time. Future harvesting on the same sites will take place in second-growth forests at younger ages, yielding lower volumes per hectare.
- Where the long-term harvest level is significantly below the current AAC, the chief forester's strategy is to gradually reduce AACs in a managed transition to the lower level over several decades—provided the long-term harvest level is not jeopardized. This allows communities that rely on the forest sector to avoid sudden economic disruptions and to plan for the future.

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